



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/636,158	08/07/2003	Roderick MacRae	18047	3609

26794 7590 11/17/2004

TYCO ELECTRONICS CORPORATION
4550 NEW LINDEN HILL ROAD, SUITE 450
WILMINGTON, DE 19808

EXAMINER

FAULK, DEVONA E

ART UNIT PAPER NUMBER

2644

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

07/3

Office Action Summary	Application No. 10/636,158	Applicant(s) MACRAE, RODERICK	
	Examiner Devona E. Faulk	Art Unit 2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-12 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 9 claims the microphone enclosure of claim 5 but recites the exact claim language as claim 5.

Claim Rejections - 35 USC § 112

2. Claims 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 claims the portable radio of claim 8, but claim 8 does not claim a portable radio but a microphone enclosure. Claim 12 claims the portable radio of claim 5, but claim 5 does not claim a portable radio but a microphone enclosure.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-3, and 5-8** are rejected under 35 U.S.C. 102(b) as being anticipated by Akino (U.S. Patent 6,148,089).

Regarding **claim 1**, Akino discloses a microphone enclosure comprising a casing (F; Figure 2B; column 4, lines 14-25) for containing a microphone (2, Figure 2B; column 4, lines

Art Unit: 2644

14-25) for receiving sound and converting said sound into at least one electrical signal (Figure 2B); and at least one inlet for allowing sound to reach said microphone; said at least one inlet having a plurality of openings (4, acoustic terminals, Figure 2B; les, 24; column 4, lines 13,49-51) forming at least one tortuous path therein (Figure 2B).

All elements of **claim 2** are comprehended by claim 1 (4, acoustic terminals; Figure 2B).

All elements of **claim 3** are comprehended by claim 2 (Figure 2B).

All elements of **claim 5** are comprehended by claim 1 (5, waterproof film; Figures 11A and 11B).

All elements of **claim 7** are comprehended by claim 5. Therefore, claim 7 is rejected for reasons given above apropos of claim 5.

All elements of **claim 8** are comprehended by claim 5. Therefore, claim 8 is rejected for reasons given above apropos of claim 5.

Regarding **claim 6**, Akino discloses a microphone enclosure comprising a casing (F, Figure 2B) for containing a microphone (2; Figure 2B; column 4, lines 14-25) for receiving sound and converting said sound into at least one electrical signal (, Figure 1); an first opening proximate said microphone (4, acoustic terminals; Figure 2B; column 4, lines 13, 49-51); a second opening proximate said microphone (4, Figure 2B); and at least one inlet formed by a convergence of said first opening and said second opening (24; Figure 2B) for allowing sound to impinge upon said microphone.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2644

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 4 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Akino (U.S. Patent 6,148,089) in view of Hood et al. (U.S. Patent Application 2003/0072131).

Claim 4 claims the microphone enclosure of claim 1 and **claim 8** claims the microphone enclosure of claim 5, wherein said microphone enclosure further contains a circuit board; integrated components on said circuit board for receiving signals from said microphone; and an antenna in communication with said integrated components for transmitting said electrical signal. As stated above apropos of claim 1 and 5, Akino meets all elements of that claim. Therefore, Akino meets all elements of claims 4 and 8 with the exception of an antenna as claimed. An integrated circuit board is inherently present but Akino fails to disclose an antenna in communication with said integrated components for transmitting said electrical signal. Hood discloses a notebook computer with an antenna (164, 174; Figures 1 and 2; page 2, paragraph 0017, 0028) as claimed. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use Hood's concept of an antenna to provide for wireless transmission.

6. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (U.S. Patent 6,525,854) in view of Akino (U.S. Patent 6,148,089)

Regarding **claim 10**, Takahashi discloses a portable radio (Figures 1 and 4A) comprising a circuit board (Figure 1, obvious); integrated components on said circuit board for transmitting and receiving signals to and from said portable radio (Figure 2); an antenna (1; Figures 1 and 4A) in communication with said integrated components for transmitting and receiving said signals (Figure 1); a microphone (5) in communication with said integrated components on said

Art Unit: 2644

circuit board for converting between sound and electrical signals; a casing for containing a microphone, said integrated components, and said circuit board (Figure 4A). Takahashi fails to disclose a first and second opening and at least one inlet as claimed. However, this concept was well known in the art at the time of filing as taught by Akino. Akino discloses a first opening (4, acoustic terminals; Figure 2B; column 4, lines 13, 49-51) in said casing proximate said microphone (2, Figures 2B); a second opening (4, acoustic terminals; Figure 2B) in said casing proximate said microphone (2, Figure 2B), and at least one inlet formed by a convergence of said first opening and said second opening for allowing sound to impinge upon said microphone (Figure 2B). Thus it would have been obvious to one of ordinary skill in the art to use Akino's concept of a microphone enclosure in order to make the directivity to be directed to the mouth of the speaker.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 703-305-4359. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DF



FORESTER W. ISEN
PATENT EXAMINER